Appl. No. 09/750,100
Amdt. dated September 16, 2004
Reply to Office Action of April 21, 2004

PATENT

Amendments to the Specification:

Please replace paragraph [0015] with the following amended paragraph:

--[0015] Also, the dynamic objects may include a first set of dynamic objects and a second set of dynamic objects and in the stop of selectively manipulating the motions of the dynamic object, each set of dynamic objects is manipulated with respect to separate reference points on the kinematic object. In addition, the dynamic objects may selectively be manipulated with reference to a plurality of reference points coupled to those dynamic objects.--

Please replace paragraph [0027] with the following amended paragraph:

--[0027] For simplicity, it is assumed that the dynamic element consists of n particles, with the ith particle having mass m_i. Such dynamic elements consisting of particles 22 are illustrated in Figs. [[2]] 3 and [[3]] 4. While the examples provided herein discuss the representation of the dynamic elements as a series of particles, IFGs that act on continuum objects are just as easily defined. Each particle i in the dynamic element is associated with a predetermined motion of a reference point $p_i \in R^3$, that is, at time t, the reference point for the ith particle has location $p_{i(t)}$. In Figs. [[2]] 3 and [[3]] 4, the reference point is denoted by element 21.--

Please replace paragraph [0028] with the following amended paragraph:

--[0028] The motion of the reference points defines an acceleration field, some portion of which the animator wants to pass along to the dynamic particles. Thus, for each particle i a filtering function G_i is defined whose input and output is an acceleration in R^3. Given these definitions, at time t the IFG imparts on particle i a force $f_i(t)$ defined by:

$$f_i(t) = m_i G_i(\ddot{p}_i(t))$$

where $\ddot{p}_i(t) = \dfrac{d}{dt^2} p_i(t)$ is the acceleration of p_i. This force is illustrated by the white arrows 23 shown in Fig. [[3]] 4. Examples of different IFGs and their use will now be described.--